Monday, April 22, 2013, from 9:30 – 10:00 a.m. & 2:30 – 3:00 p.m.

WAPC 2013 Poster Session
Grand Salon Foyer

Integrated Mother- Premature Infant Intervention and Mother-Infant for Interaction at 6- weeks Corrected Age

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Faculty Disclosure: Nothing to disclose

Statement of Problem: Premature infants present subtle behavioral cues and their mothers experience stress and anxiety, often leading to difficulties in mother-infant interaction. Prior studies have reported positive associations between mother-infant interaction and infant development. No previous interventions have simultaneously addressed the role of mothers and infants in improving the quality of their interactions.

Hypothesis: Does an integrated intervention for mother-premature infant dyads relates to more positive mother-infant interaction at 6-weeks corrected age (CA)?

Methods/design: This ongoing randomized trial is testing the impacts of H-HOPE, an integrated intervention for mother-premature infant dyads. Selection criteria are: otherwise healthy infant, 29-34 weeks gestational age, and at least 2 of 10 family social-environmental risk factors, e.g., low maternal education, poverty. The intervention includes (1) twice-daily infant stimulation using the ATVV (auditory, tactile, visual, and vestibular-rocking stimulation) and (2) four maternal participatory guidance sessions by a nurse-community member team. Mother-infant interaction was assessed at 6-weeks CA using the Nursing Child Assessment Satellite Training–Feeding Scale (NCAST, 76 items) and the Dyadic Mutuality Code (DMC, 6-item contingency scale during a 5-minute play session).

Results: With regard to the NCAST, mother-infant dyads in the H-HOPE group (n = 47) did not have higher mean scores than those in the control group (n = 49) for the full scale or the maternal subscale, but did have significantly higher scores for the infant subscale (p = 0.05), specifically the infant clarity of cues subscale (p = 0.009). With regard to the DMC, the H-HOPE dyads were more likely to have high responsiveness scores (67.3% versus 52.5% of control group dyads). After adjustment for maternal race/ethnicity, Spanish language preference, multiple infants in the household, infant birthweight and chronological age at follow-up, H-Hope dyads had an approximately two-fold increased odds of high mutual responsiveness compared to the control group (OR = 2.41, 95% CI = 1.03, 5.68, n = 112).

Conclusions: H-Hope infants presented clearer behavioral cues and had higher mutual responsiveness with their mothers during play. Intervening with both mother and infant is a promising approach to help premature infants achieve the social interaction patterns essential for optimal development.